

Application Serial No. 10/574,170
Amendment dated June 17, 2010
Response to Office Action dated April 20, 2010

REMARKS

I. RESPONSE TO REJECTION OF THE CLAIMS AS OBVIOUS

In the Office Action dated April 20, 2010 (hereafter "the Office Action"), the Examiner rejected claims 24-29, 31, 32, 44-51 and 54 as being rendered obvious in view of U.S. Patent Application Publication No. 2004/0158644 to Albuquerque et al. (Office Action, at 5).

Claims 33-34 were rejected as obvious in view of the combination of Albuquerque et al. and U.S. Patent Application Publication No. 2003/0097443 to Gillett et al. (Office Action, at 19).

Claim 52 was rejected as obvious in view of Albuquerque et al. and U.S. Patent No. 6,222,856 to Krishnan et al. (Office Action, at 21).

A. Burden Of Proving Obviousness Under 35 U.S.C. § 103

"All words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP § 2143.03 (emphasis added). "When evaluating claims for obviousness under 35 U.S.C. 103, all the limitations of the claims must be considered and given weight." MPEP § 2143.03. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." *Id.* "A 35 U.S.C. 103 rejection is based on 35 U.S.C. 102(a), 102(b), 102(e), etc. depending on the type of prior art reference used and its publication or issue date." MPEP § 2141.01.

To establish a *prima facie* case of obviousness, an Examiner must show that an invention would have been obvious to a person of ordinary skill in the art at the time of the invention. MPEP § 2141. "Obviousness is a question of law based on underlying factual inquiries." *Id.* The factual inquiries enunciated by the Court include "ascertaining the differences between the

claimed invention and the prior art" and "resolving the level of ordinary skill in the pertinent art." MPEP § 2141.

"A statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." MPEP § 2143.01. "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, **there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.**" MPEP § 2143.01 (citing *KSR*, 82 USPQ2d at 1396) (emphasis added).

Moreover, "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." MPEP § 2143.01. Also, "the proposed modification cannot render the prior art unsatisfactory for its intended purpose." MPEP § 2143.01.

B. Claims 24-29, 31-34, And 44-47 Are Allowable

Claim 24 defines a method that includes triggering a bandwidth test. The bandwidth test comprises sending a bandwidth request to each terminal, registering a bandwidth of an associated part connection after each hop and receiving assembled data relating to bandwidth available for each terminal. Claims 25-29, 31-34 and 44-47 depend directly or indirectly from claim 24 and therefore also contain these limitations.

The cited art does not teach or suggest the bandwidth test recited in claim 24. For example, there is no bandwidth testing done in the system disclosed by Albuquerque et al. The Examiner states that Albuquerque et al. teaches a bandwidth test at paragraphs 27 and 28 (Office Action, at 5). To the contrary, Albuquerque et al. only teaches a computation of available bandwidth by a bandwidth manager overseeing a particular private network. The bandwidth manager taught by Albuquerque et al. would fail whenever other networks are traversed, such as the internet, because without a test there would be no information about available bandwidth. (*See e.g.* Figures 2 and 4, ¶¶ 21, 24-26).

The Cited Art Does Not Teach Or Suggest Bandwidth Tests

The cited prior art does not teach or suggest any bandwidth test that involves sending a bandwidth request to each terminal, registering a bandwidth of an associated part connection after each hop and receiving assembled data relating to bandwidth available for each terminal as required by claims 24-29, 31-34 and 44-47. The Examiner states that the cited prior art discloses a bandwidth manager that determines the flow on a link between terminals and an access point that calculates if there is enough bandwidth available in a network at paragraphs 28, 29 and 66 of Albuquerque et al. However, no portion of the Albuquerque et al. or any other cited art teaches or suggests sending a bandwidth request to each terminal, registering a bandwidth of an associated part connection after each hop, nor receiving assembled data relating to bandwidth available for each terminal.

Claim 24 explicitly requires "triggering a bandwidth test, the bandwidth test comprising sending a bandwidth request to each terminal, registering a bandwidth of an associated part connection after each hop and receiving assembled data relating to bandwidth available for each

terminal." At page 3 of the Office Action, the examiner cites paragraph 66 of Albuquerque et al. as disclosing this element of claim 24. The word "test" does not appear in paragraph 66. Instead, paragraph 66 says "changes in link speed are reported to the BM." The Examiner relies on this teaching saying "Accordingly, since it is able to identify the link speed it is seen to do perform bandwidth tests." (Office Action, at 3). In reaching this conclusion, the Examiner is improperly using Applicant's disclosure to read into Albuquerque et al. that which Albuquerque et al. do not teach or suggest. In saying "changes in link speed are reported" Albuquerque et al. suggests continuous monitoring, not testing. Furthermore, there is nothing in the Albuquerque et al. reference that tells a reader what is done to cause the reporting of the link speed. It is improper for the Examiner to conclude that Albuquerque et al. teach or suggest a bandwidth test as required by claim 24.

The Cited Art Does Not Teach Or Suggest Bandwidth Requests Sent To Terminals

The system disclosed by Albuquerque et al. does not disclose any bandwidth request being sent to any terminals. Instead, bandwidth requests are transmitted by terminals to an access point. The access point then utilizes a bandwidth manager to allocate bandwidth for that terminal. To the extent the Examiner is suggesting that the system disclosed by Albuquerque et al. be modified to read on the requirement that bandwidth requests be sent to terminals, the proposed modification of the Albuquerque et al. reference is improper since it would change the principle of operation of the prior art invention being modified. MPEP § 2143.01.

The Cited Art Does Not Teach Or Suggest Any Bandwidths Of Associated Part Connections Being Registered After Each Hop

Albuquerque et al. also do not disclose or suggest any bandwidths of associated part connections being registered after each hop. The only registrations of bandwidth disclosed by Albuquerque et al. is the maintenance of a registration table via flow registration units FRs that operate from a plurality of terminals. (¶¶ 33, 37, Table 2). The bandwidth manager BM may also manage such a reservation table. *Id.* at ¶ 42. None of these bandwidth registrations are registrations of bandwidth of associated part connections being registered. To the contrary, this is only a reservation of bandwidth required by flows from a utilization of a full connection, such as a link. *Id.* at ¶ 42.

The Cited Art Does Not Teach Or Suggest Any Assembly Of Data Relating To Bandwidths Available For Each Terminal

Moreover, Albuquerque et al. does not disclose or suggest any receiving of assembled data relating to bandwidth available for each terminal. As admitted in the Office Action, Albuquerque et al. only discloses an access point that "calculates if there is enough bandwidth available in the network." (Office Action, at 6). There is no receiving of any assembled data relating to bandwidth available for each terminal as part of a bandwidth test disclosed or otherwise suggested in the cited prior art.

C. Claims 48-52 Are Allowable

Claim 48 requires a computer to include a network resource test device connected to at least one of the network resource allocation device, the performance characteristic providing device, and the network resource distribution memory. The network resource test device is configured to oversee a bandwidth test, the bandwidth test comprising sending a bandwidth

request to each terminal, registering a bandwidth of an associated part connection after each hop in a communication path between each terminal and the computer, and receiving assembled data relating to bandwidth available for each terminal via the associated part connections in each communication path.

The cited art does not teach or suggest a network resource test device as required by claims 48-52. As discussed above with reference to claim 24, none of the cited art teach or suggest any running of any bandwidth test. Nor does the cited art teach or suggest a network resource test device configured to oversee such a test or a bandwidth test that includes registering a bandwidth of an associated part connection after each hop in a communication path between each terminal and the computer, and receiving assembled data relating to bandwidth available for each terminal via the associated part connections in each communication path.

D. Claim 54 Is Allowable

Claim 54 defines a method for substantially real time transmission of a software component that includes the step of if the computed amount of available bandwidth resources is equal to or greater than an amount of bandwidth necessary to transmit the software component to the requesting terminal, reducing the at least one lower priority process such that the at least one lower priority process is still able to utilize some bandwidth and transmitting the software component to the requesting terminal.

None of the cited art teaches a reduction of a lower priority process such that that one or more lower priority processes are still operational. Indeed, the cited art teaches away from such a limitation. For example, Albuquerque et al. teach that any lower priority process be eliminated

or rejected in the event a higher priority process requires all the bandwidth being used by that or reserved for that process to be released. (¶ 46, Figure 5).

In the Office Action, the Examiner contends that paragraph 44 of the Albuquerque et al. reference teaches a reduction of the at least one lower priority process such that the at least one lower priority process is still able to utilize some bandwidth. To the contrary, this paragraph states that "bandwidths reserved may be temporarily halted or rejected and loose their reserved bandwidths." This paragraph does not teach or suggest a reduction of bandwidth for a connection that permits a terminal or process to still be able to utilize some bandwidth that was previously assigned to it as required by claim 54.

The cited art alone or in any combination fails to teach or suggest all the limitations of claim 54.

Application Serial No. 10/574,170
Amendment dated June 17, 2010
Response to Office Action dated April 20, 2010

II. CONCLUSION

For at least the above reasons, allowance of all pending claims is respectfully requested.

Respectfully submitted,

Dated: June 17, 2010

/Ralph G. Fischer/

Ralph G. Fischer
Registration No. 55,179
BUCHANAN INGERSOLL & ROONEY PC
One Oxford Centre
301 Grant Street, 20th Floor
Pittsburgh, PA 15219-1410
(412) 392-2121

Attorney for Applicant